



Halogen-free, thermoplastic, flame retardant sheathing compound for low and medium voltage cables

<p>■ Compound class Sheathing</p>	<p>■ Compound category TP</p>	<p>■ Flame retardant ATH</p>
<p>■ Standards DIN EN 50363-8 TM7 IEC 60092-360 SHF 1</p>	<p>VDE 0207 part 24 HM2 VDE 0250 part 215 HM 5</p>	<p>BS 7655 part 6.1 LTS 1 & LTS 3</p>
<p>■ Operating temperature [°C] -25 to 80</p>	<p>■ Oil resistance level ★</p>	

■ **Typical applications**
Halogen-free, low smoke, thermoplastic, flame retardant compound for the sheathing of low and medium voltage cables in General Installation applications. The compound features a high line speed and good processability.




Installation




Shipboard


■ **Features**




Flame retardant



Low smoke



Halogen-free



Weather / UV resistant

PHYSICAL PROPERTIES

Physical properties	Unit	Typical value	Test method
Density*	g/cm ³	1.49	DIN EN ISO 1183-1A
Hardness*	Shore D	47	DIN ISO 48-4
Melt Flow Index (150°C; 21,6kg)	g/10 min	11.8	DIN EN ISO 1133

MECHANICAL PROPERTIES **

Thermoplastic	Unit	Typical value	Test method
Tensile strength	N/mm ²	10.6	IEC 60811-501
Elongation at break	%	189	IEC 60811-501
After ageing in air oven 168h at 100°C	Unit	Typical value	Test method
Variation in tensile strength	%	7.9	IEC 60811-401
Variation in elongation at break	%	-21.3	IEC 60811-401

THERMAL PROPERTIES **

■ Heat tests	Unit	Typical value	Test method
Hot pressure test: penetration 6h at 80°C	%	11	IEC 60811-508

RESISTANCE **

■ Water purified 168h at 70°C	Unit	Typical value	Test method
Variation in tensile strength	%	-17.1	IEC 60811-404
Variation in elongation at break	%	-3.8	IEC 60811-404
Variation in weight	%	0	IEC 60811-404
■ UV weathering – ISO 4892-2 720h	Unit	Typical value	Test method
Variation in tensile strength	%	1.7	IEC 60811-401
Variation in elongation at break	%	-21.8	IEC 60811-401

BURNING PROPERTIES *

■ Main burning properties	Unit	Typical value	Test method
LOI	%	36	ASTM D 2863 A
Halogen content	%	0	IEC 754-1
■ Acid gas emission	Unit	Typical value	Test method
Corrosivity: pH (min.)	-	≥ 4,5	IEC 60754-2
Conductivity (max.)	µS/mm	≤ 10	IEC 60754-2

* pressed plaques, 155°C / 5 min.

** extruded tapes

PROCESSING GUIDE

■ **Extruder Type**

Standard extruders for elastomeric or thermoplastic processing.

■ **Screw configuration**

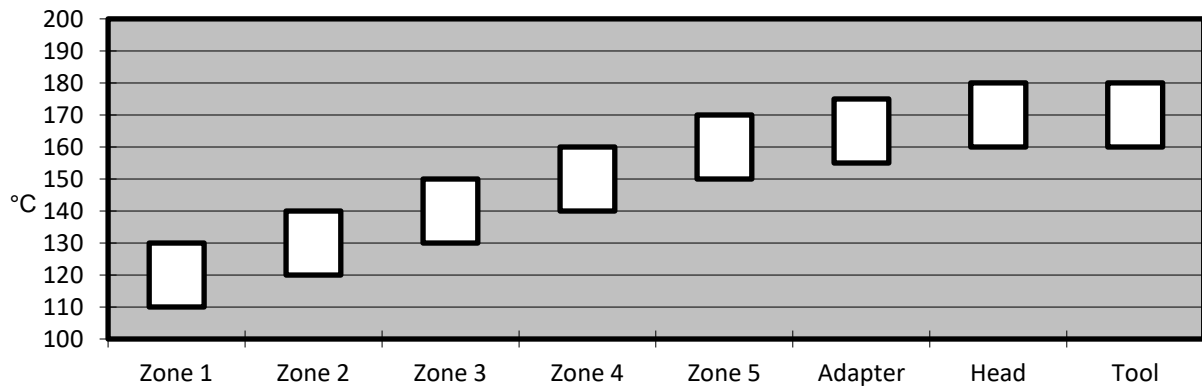
Low compression screw with L/D of 20 to 25 and compression ratio of 1:1.2

■ **Tooling**

For insulation pressure tools, for jacketing tube tools are recommended.
Note: Pressure Tooling may have an effect on low temperature flexibility.

■ **Temperature profile extruder**

The profile shown below may vary slightly depending on extruder type, head design & output.



■ **Maximum mass temperature**

165 – 175°C

■ **Drying**

Not necessary if the compound has been stored in original packing under cool (max. 30°C) and dry conditions. Mecoline compounds used from open packing require pre-drying during 4–6 hours at 60–70°C.

STORAGE INFORMATION

■ **Form & packaging**

Pellets in sizes 2.8mm & 5.5mm
Moisture-resistant bags (25kg) & octabins (alu-innerliner, max. 1250kg)

■ **Shelf life**

1 year after date of manufacturing

Note: The information given in this datasheet is believed to be accurate and reliable. However, no warranty, express or implied, or guarantee is given as to the suitability, accuracy, reliability or completeness of the information. This information does not hold us liable for damages or penalties resulting from following our suggestions or recommendations.